WHAT IS CLAIMED IS

1. A recycle system of aqueous paint comprising:

coating an article to be coated with an aqueous paint in a water-curtain-type coating booth,

collecting an over-spray paint that does not adhere with the article by water-curtain,

sending the collected solution to a condensation bath through a booth circulation water bath,

separating it by a ultrafiltration apparatus into condensed paint and filtrate, the condensed paint being transferred to a paint tank, and

taking the condensed paint out of the paint tank if necessary to adjust, followed by coating it as an aqueous paint,

wherein a total amount of liquid present within the recycle system is controlled constant during spray-coating.

2. The recycling system of aqueous paint according to claim 1 wherein a total of a volume (Vw) of the booth circulation water, a volume (Vx) of the filtrate, a volume (Vy) of the collected solution in the condensation bath, and a volume (Vz) of the condensed paint in the paint tank, that is (Vw+Vx+Vy+Vz), is kept constant.

3. The recycling system of aqueous paint according to claim 1, wherein, in case where the system further comprises a settling tank for storing the booth circulation water and a rinse tank for storing filtrate taking out of the filtrate bath, a total of a volume (Vw) of the booth circulation water, a volume (Vx) of the filtrate, a volume (Vy) of the collected solution in the condensation bath, a volume (Vz) of the condensed paint in the paint

tank, a volume (Vs) of the booth circulation water in the settling tank and a volume (Vt) of the filtrate in the rinse tank, that is (Vw+Vx+Vy+Vz+Vs+Vt), is kept constant.

4. The recycle system of aqueous paint according to claim 1, wherein after operating the recycle system a certain period of time and stopping spray-coating, a necessary amount of the filtrate for cleaning the coating booth is sent from the filtrate bath to the spray-coating booth to clean inside the coating booth, and then sent to the condensation bath, followed by re-starting spray-coating, thus keeping the liquid content of the recycle system constant.

5. The recycle system of aqueous paint according to claim 1, wherein after operating the recycle system a certain period of time and stopping spray-coating, a necessary amount of the filtrate for cleaning the coating booth is sent from the filtrate bath to the spray-coating booth to clean inside the coating booth, and then spray-coating re-starts, followed by supplying water into the condensation bath, thus keeping the liquid content of the recycle system constant.

6. The recycle system of aqueous paint according to anyone of claims 1 to 5, wherein the condensed paint is adjusted by adding another aqueous paint and volatile component and re-used as aqueous paint.